2024

FINGER LAKES PRISM ANNUAL REPORT

Photo Credit: Olivia Morrison

HOBART AND WILLIAM SMITH COLLEGES

FINGER LAKES INSTITUTE

FINGER LAKES PRISM
Partnership for Regional Invasive Species Management

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INTRODUCTION

Vision

Finger Lakes Partnership for Regional Invasive Species Management (PRISM) preserves the biodiversity of our natural communities through the prevention, detection, and control of invasive species.

Mission

Our mission is to reduce the introduction, spread, and impact of invasive species by working collaboratively with partners to implement effective education, outreach, and control measures.

Summary

This report highlights prominent accomplishments for PRISM between April and December 2024. Our staff has worked hard this year to continue our diverse programming addressing invasive species in the Finger Lakes region. Our 17-county region is roughly the size of New Jersey, making it challenging to address all populations of priority invasives. Instead, our approach utilizes existing data and knowledge to address emerging invasive species issues and strategically mitigate the effects of prevalent invasives. Our outreach efforts are broad in geographic and topical range. We continue to build our efforts to address terrestrial invasive species through prevention, monitoring, and control. We have taken a scientific approach to program evaluation that uses historical datasets to improve existing programs and ask and answer important methodological and evaluation questions. As we close on another year of invasive species management, we also close on the current Finger Lakes PRISM contract and look forward to future opportunities to continue this work. In doing so, we have had the pleasure of reflecting on almost eleven years of work with diverse partners across our region. Thank you to all partners and volunteers that have supported the Finger Lakes PRISM this year. None of this work could be possible without the dedication of our staff. The diverse set of interests, skills, and experiences they offer allow us to apply our approach successfully in a way that consistently improves and advances the field of invasive species management in the Finger Lakes region.

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FINGER LAKES PRISM Partnership for Regional Invasive Species Management

INTRODUCTION

FINGER LAKES INSTITUTE
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The Finger Lakes Institute (FLI) at Hobart and William Smith Colleges (HWS) strives to protect and promote the water resources and natural capital of the Finger Lakes region. We connect HWS academic activities to needs and stakeholders locally, statewide, and regionally. The FLI provides 1) relevant, actionable scientific analysis for the region; 2) research and professional development opportunities for students, faculty, and staff; and 3) a place for community education about existing and emerging water quality issues through focused goals:

- ***Advance, coordinate, and share scientific data and understanding of the Finger Lakes environment;***
- ***Provide equitable, meaningful professional experiences for the next generation of environmental researchers, educators, and policymakers at HWS and beyond;***
- ***Enhance understanding of environmental issues by regional policymakers and the public;***
- ***Support the economic foundation of the Finger Lakes region through comprehensive land use planning, policy development, and sustainable enterprise;***
- ***Promote regional equity by creating and increasing access to educational resources for all community partners including Finger Lakes region residents, K-12 teachers and students, HWS, and other regional colleges and universities.***

Finger Lakes Institute Invasive Species team includes: Sam Beck-Andersen, Finger Lakes PRISM Coordinator; Matt Gallo, Terrestrial Invasive Species Program Manager; Amy Slentz, Aquatic Invasive Species Program Manager; Josh Neff, AIS Field Coordinator; Ben Kelley, Data Manager; Bill Brown, Program Analyst; Devin Prine and Tabitha O'Brien, Watercraft Steward Program Coordinator; Camille Caceci, Invasive Project Coordinator; Ian Smith, Seneca Lake Watershed Steward; Isaac Walker, Cayuga Lake Watershed Manager; Nadia Harvieux, Education Program Manager; Trevor Massey, Lab Manager; Evan Helming, Laboratory Technical Director; Lisa Cleckner, Director, Finger Lakes Institute.

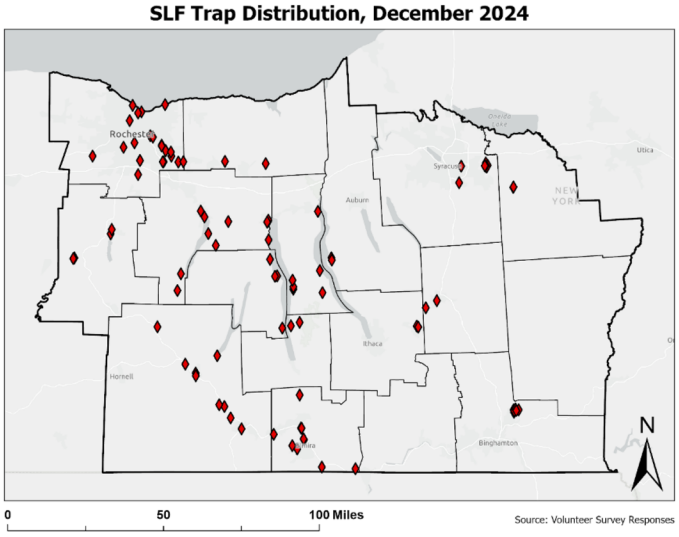
GOAL 1: PREVENTION

"Prevent the introduction and spread of invasive species (IS) to new areas within the region through targeted prevention efforts for vectors and pathways of transmission."

Finger Lakes PRISM recognizes prevention as an efficient and effective method for reducing the cost and ecological and human health impacts of invasive species. It is the cornerstone of our programming. Prevention is built into all projects and is the key to our success in the region.

Spotted Lanternfly Monitoring

As spotted lanternfly (SLF) continues to spread throughout New York State (NYS), the threat of impacts to agriculture in the Finger Lakes remains an area of concern. As of December 2024, SLF populations have been confirmed in seven counties (Broome, Monroe, Onondaga, Ontario, Seneca, Tioga, Tompkins) with sightings reported in an additional four counties (Cayuga, Chemung, Cortland, Yates). Finger Lakes PRISM works closely with the NYS Department of Agriculture and Markets (NYSDAM) to identify goals and strategies for monitoring the spread of SLF throughout the state. Utilizing supplies purchased by Finger Lakes PRISM in 2022 and others provided by NYSDAM, over 100 spotted lanternfly traps were distributed to regional partners, including 37 new traps distributed to vineyards in 2024 (Reference Map). We used current distribution maps and regional travel corridors to distribute traps and these were monitored by recipients biweekly from May to October. Recipients did not detect SLF in the provided traps.



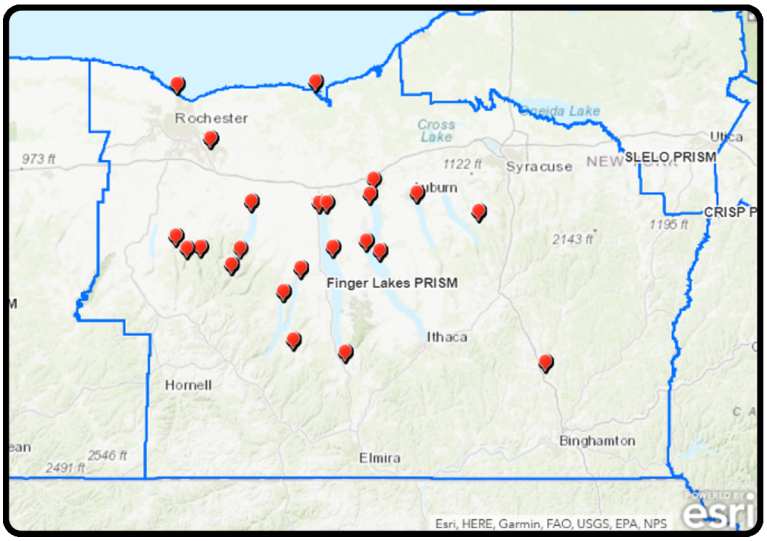
Map of SLF traps distributed to partners throughout the Finger Lakes PRISM region.

GOAL 1: PREVENTION

Watercraft Inspection Steward Program

The Finger Lakes Watercraft Inspection Steward Program (WISP) is a flagship of invasive species education and surveillance programming for the PRISM and FLI. Stewards conduct thousands of inspections at launches around the Finger Lakes. Stewards have three primary roles: 1) conduct physical and visual watercraft inspections to detect invasive hitchhikers, 2) provide education and outreach about preventing invasive species spread through boating, and 3) collect valuable inspection data to support strategic program development. WISP stewards utilize the Watercraft Inspection Steward Program Application (WISPA), which was developed and is administered by the NYS Department of Environmental Conservation (NYSDEC) and the New York Natural Heritage Program (NYNHP).

In 2024, robust recruitment efforts yielded a full team of 23 stewards and a WISP Program Coordinator. The WISP successfully provided valuable prevention efforts to the region from Memorial Day through October at public and private boat launches regionally. Program staff also coordinated the staffing of a decontamination unit at Canandaigua Lake State Marine Park in Canandaigua, NY. This season, the decontamination steward completed 72 decontaminations between June and September. Further insights were gained to adapt the program for future seasons including improving staff training on equipment and communication to better support the goal of conducting more boat decontaminations.



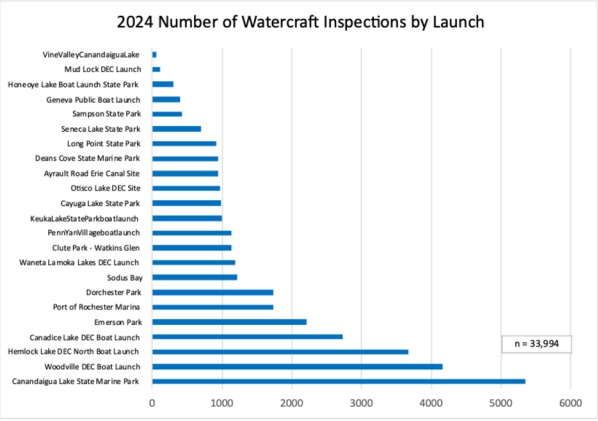
Map of FLI WSP coverage in 2024. All noted launches received at least one day of coverage per week.

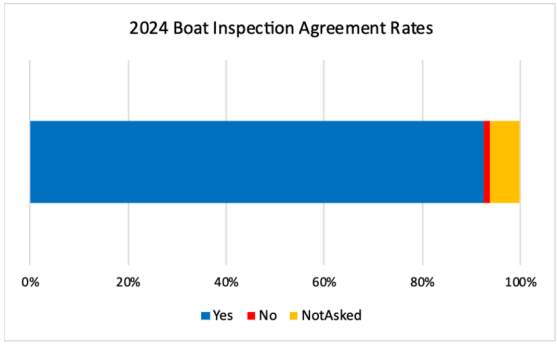
PRISM staff train new stewards at Seneca Lake State Park.

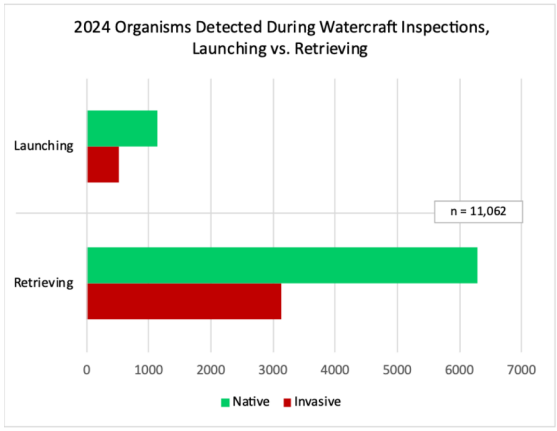
GOAL 1: PREVENTION

Watercraft Inspection Steward Program Cont'd

During the 2024 season, stewards conducted over 33,000 watercraft inspections, and intercepted thousands of invasive species. This demonstrates the potential for stewards to reduce the number of aquatic hitchhikers traveling between waterbodies. The amount and type of boaters that stewards interact with can also help gauge the sustainable impact of education on mitigating invasive species spread. Stewards interacted with almost 68,000 community members in 2024 with the vast majority of boaters opting to commit to conducting future invasive species spread prevention. Throughout the season, WISP management supports enrichment opportunities like water chestnut pulls, outreach events, ongoing training and networking, and monthly meetings. These activities help to keep stewards engaged and give them a meaningful professional development experience during their seasonal positions. A particularly notable achievement of the WISP in 2024 included the detections of hydrilla by stewards on Cayuga Lake. Stewards reported a sighting at a previously un-affected area of the lake in June, spurring a rapid monitoring response from PRISM staff and partners where no additional populations were found. Additional findings of hydrilla on launching and retrieving boats at Long Point State Park happened later in the season. These findings show how valuable WISPs can be at preventing and containing invasive macrophytes like hydrilla.







Figures from top left, clockwise: number of WISP inspections at each boat launch; proportions of commitments taken by boaters inspected by stewards; native vs. invasives detected by stewards at launching and retrieving watercraft.

GOAL 1: PREVENTION

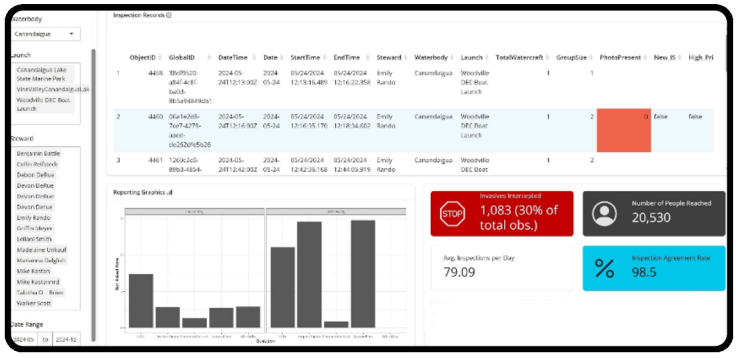
Watercraft Steward Program Cont'd

Contracts

Since the beginning of the WISP in 2012, partnerships have been key to successfully maintaining and growing a strong steward presence in the region. In 2024, partner organizations continued to support the WISP through contracts to place stewards at key launches. Partners in 2024 included Canandaigua Lake Watershed Council and Canandaigua Lake Watershed Association, Monroe County Soil and Water Conservation District, and Seneca Lake Pure Waters Association.

App

Leveraging the expertise of PRISM and FLI staff, we created a tool to visualize steward outputs in real-time. Utilizing the R coding language and Shiny package, users of the dashboard can visualize WISPA data for a given launch in a selected time frame. This allows managers to track the activities of stewards at launches as well as review and check data. The dashboard is integral for periodic and annual reporting to partners and stakeholders regionally and statewide.



A custom web-app used to display and review WISP data using R and Shiny.

Watercraft Steward Program Key Outputs

- *23 stewards and 1 regional coordinator*
- *33,994 watercraft inspected*
- *Over 67,000 interactions with people during inspections*
- *24 launches covered on 13 waterbodies*
- *88% of participating boaters committed to Clean, Drain, and Dry their watercraft to avoid transporting AIS, with over 2,000 new commitments*
- *3,643 invasive organisms detected by watercraft stewards*
- *72 high-priority watercraft decontaminated at Canandaigua Lake State Marine Park Decontamination Station*
-

GOAL 1: PREVENTION

Education and Outreach

Education and outreach is the most important method for preventing the introduction and spread of invasive species. PRISM staff participate in a variety of events across the region to inform and shape the way people think about invasive species, the natural environment and communities in general. We focus on providing general awareness about invasive species and equipping volunteers and participants with tools to address invasive species on a regional scale. We also bring stakeholders together and facilitate conversations and actions in meetings. These conversations help us learn about localized issues and priorities of our partners. They also serve to identify important topics for future trainings, new projects, and recruiting new partners. Trainings and workshops held virtually and in person.

Key Outputs

- *9 trainings (146 people)*
- *12 tabling events (867 people)*
- *20 presentations delivered (45,864 people)*
- *12 workshops (278 people)*
- *7 meetings hosted (173 people)*
- *Over 1,400 Facebook followers and 736 Instagram followers; over 350,000 impressions on Nextdoor*

From top left, clockwise: PRISM staff attend an outreach event; high school students participate in the 2024 Finger Lakes Youth Climate Summit; PRISM staff featured on local talk radio reaching 45,000 listeneners for NY Invasive Species Awareness Week

OUTCOME: New invasions to the region are prevented to the greatest extent practicable.

GOAL 2: EARLY DETECTION, RAPID RESPONSE

"Implement early detection and rapid response measures to identify new IS to the area and respond to mitigate the effects."

Early detection and rapid response (ED/RR) are critical to controlling the spread of invasive species and managing impacts. The Finger Lakes PRISM engages in multiple ED programs regionally. Our technical staff work diligently through the summer and fall growing seasons to identify existing and emerging populations of high-priority invasive species. With 17 counties and 7.3M acres, detecting invasive species across all landscapes is challenging. To supplement structured survey efforts, we train and mobilize volunteers to help fill the gaps in invasive species data across the region.

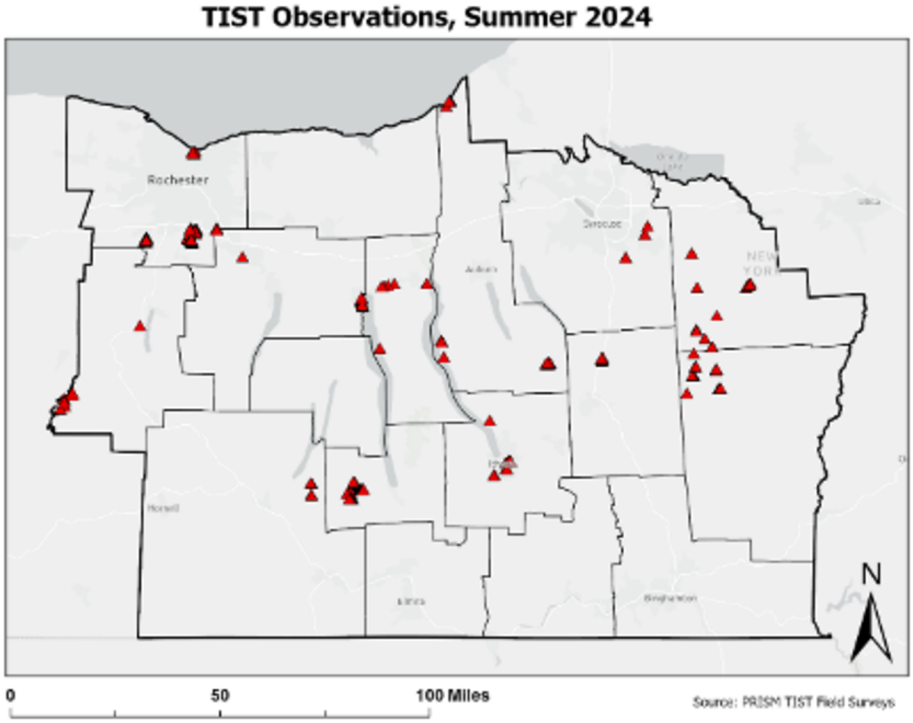
Terrestrial Surveys

The 2024 field season marked the second year of PRISM fieldwork focused on terrestrial invasive species (TIS). Like the monitoring efforts of the AIS team, we used existing datasets to inform a strategic approach to addressing TIS. Building on the program's pilot season in 2023, most of the TIS Field Team's work fell into two general categories: 1) early detection and monitoring for emerging invasive species and 2) supporting partner-driven invasive species survey and control projects through a crew assistance program (CAP). In addition, the team also initiated work with private landowners to survey and/or remove priority species populations on their property. TIS technicians recorded over 1,300 high priority invasive species observations regionally in 2024.

Priority List

We utilized datasets including iMapInvasives, Centre for Agriculture and Biosciences International (CABI), UMass Amherst, Invasive Species Centre, and others from NYS PRISMs to make a list of priority species for the region. Species were selected based on potential for invasion, potential for negative impacts, and regional abundance. Phenology characteristics for priority species were examined collectively to strategize the timing of monitoring efforts. The list in 2024 included 21 species and included more commonly known invasives such as Japanese stiltgrass (*Microstegium vimineum*) and mile-a-minute (*Persicaria perfoliata*), and lesser-known species such as chocolate vine (*Akebia quinata*) and plume poppy (*Macleaya cordata*).

GOAL 2: EARLY DETECTION, RAPID RESPONSE



From top , clockwise: Invasive species observations made by the TIS team in 2024; TIS team members conducting chocolate vine (*Akebia quinata*) removal at a private residence in Owego, NY; TIS technician Katie Crandall surveying a Geneseo property for mile-a-minute vine, in partnership with SUNY Brockport.

GOAL 2: EARLY DETECTION, RAPID RESPONSE

Spotted Lanternfly Detection

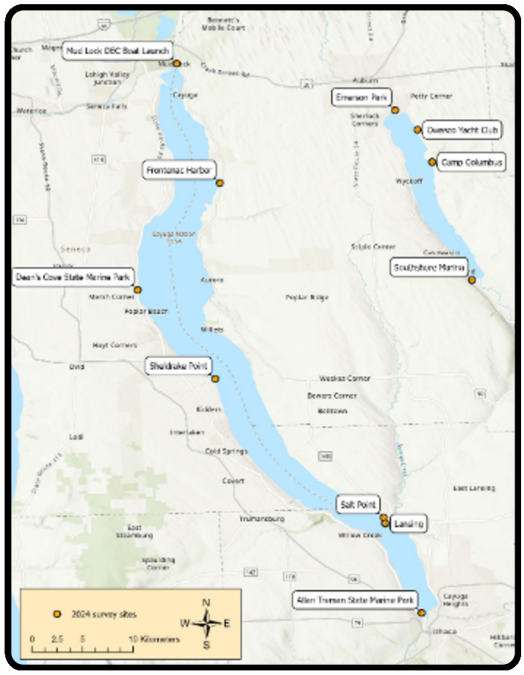
Though not part of a formal survey, in early November, PRISM staff detected a spotted lanternfly on a tree-of-heaven adjacent to the HWS campus. This marked the first known population of SLF in Ontario County, which is in the heart of the Finger Lakes wine region. This report was swiftly coordinated with NYSDEC, NYS Department of Agriculture and Markets, and Cornell's Integrated Pest Management Program. PRISM staff supported additional surveys surrounding the initial observation, and several other populations were discovered. This marks an important, although disconcerting discovery for the Finger Lakes PRISM. Education and outreach for SLF, while already prominent, will be elevated in the near future to address the new observations of in Ontario County and elsewhere in the Finger Lakes.

The first detection of SLF in Ontario County, located near HWS campus, found and reported by Finger Lakes PRISM staff members.

GOAL 2: EARLY DETECTION, RAPID RESPONSE

Marcophyte Surveys

Macrophyte monitoring conducted by our Aquatic Invasive Species (AIS) Field Team falls into two categories: early detection surveys and hydrilla monitoring. Some overlap in outcomes and methodology exists between the two categories. Point intercept surveys are conducted for each program, primarily focused on areas with a high likelihood of AIS introduction such as boat launches, boating clubs, or other hubs of human use on a waterbody. Technicians collected information about the presence or absence of invasive and native macrophyte species. Survey methodology was updated in 2024 to improve the quality of rake toss data collected. Plant volumes and abundances were recorded to quantify plant biomass and species proportions present on a rake toss. Survey sites were also repeated monthly from June through October to examine changes in macrophyte communities over time. Sites were sampled using a 100 m by 50 m grid. Both categories utilize existing datasets from the WISP to inform common boater travel networks throughout the Finger Lakes. Hydrilla monitoring focuses on surveying active hydrilla infestations, sites most likely to experience incoming hydrilla from Cayuga Lake, and sites within Cayuga Lake likely to experience intra-lake spread of hydrilla. Early detection surveys address possible new invasive detections region-wide, using overall boat launch traffic to indicate the likelihood of new infestations. AIS technicians conducted over 5,700 rake tosses throughout the Finger Lakes region in 2024. There were no new infestations of hydrilla discovered in 2024, as all hydrilla detections were within hydrilla treatment areas.



Locations of macrophyte survey sites completed in 2024.

GOAL 2: EARLY DETECTION, RAPID RESPONSE

PRISM volunteers drive much of what we do. By facilitating opportunities to participate, motivated volunteers assist in PRISM efforts leading to valuable relationships that expand our detection network across the Finger Lakes. Volunteers are trained in ecology, identification, sampling, and reporting methods for AIS and TIS through various citizen science programs. These trainings enrich volunteers by building community and encouraging stewardship of natural resources while providing important distribution data for invasive species managers regionally and statewide.

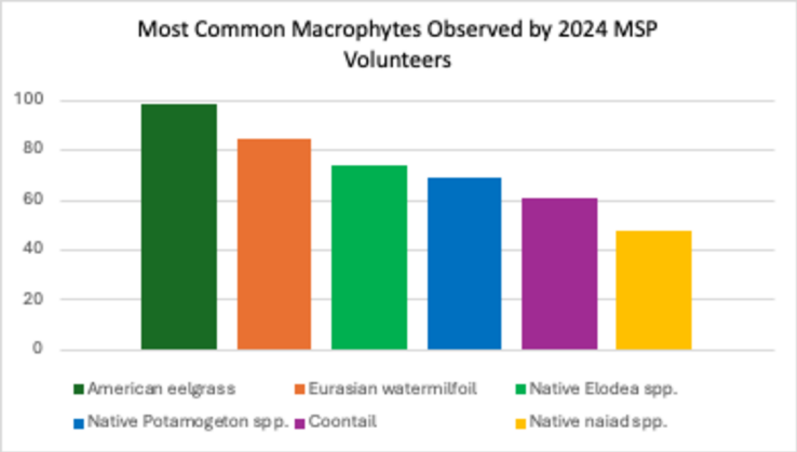
Macrophyte Survey Program

The Macrophyte Survey Program (MSP) trains community scientists to sample for invasive macrophytes in waterbodies regionally. Participants report findings using a phone or tablet biweekly. While volunteers are encouraged to examine and report everything they find while sampling, we focus on three high-priority invasive species for the region: hydrilla (*Hydrilla verticillata*), starry stonewort (*Nitellopsis obtusa*), and water chestnut (*Trapa natans*). In 2024, 54 active participants conducted over 300 rake tosses on over 20 waterbodies. MSP volunteers made over 650 species detections, and no new populations of hydrilla, starry stonewort, or water chestnut were recorded.

Trail Survey Program

Our Trail Survey Program (TSP) empowers the public to "adopt" a trail or other open space by regularly monitoring for invasive species. Volunteers have two options to participate: Trail Trackers identifying six invasive species or Trail Masters identifying nearly 20 different species. The TSP implemented a custom Survey123 form for the 2024 season rather than continuing to use iMapInvasives, though this option was still available to volunteers if desired. This year, 36 volunteers using Survey123 submitted 668 surveys (presence or absence), many of which contained observations of multiple species at a time. An additional five volunteers submitted 74 records using iMapInvasives. Across both platforms, volunteers recorded 827 individual invasive species observations, and a total of 9,241 individual species non-detections. Overall, around 87% of observations were submitted by Trail Masters.

GOAL 2: EARLY DETECTION, RAPID RESPONSE



Left: Most commonly reported species for MSP volunteers in 2024.

Bottom: 2024 MSP rake toss survey from volunteer Gregory King on Cazenovia Lake.

Key Outputs

- *Macrophyte Surveys – 5,792 rake tosses across 5 waterbodies*
- *Terrestrial Surveys – 48 acres surveyed, 7.5 miles surveyed*
- *Community Science Programs – 94 active volunteers submitted 1,034 survey points and detected 967 invasive species*
- *Spotted Lanternfly - Over 100 traps distributed – new population detected in Ontario County*

OUTCOME: Priority conservation targets are protected from new invasive species infestations.

GOAL 3: PARTNERSHIPS, EDUCATION, INFORMATION

"Build partnerships and networks that leverage effective public education efforts and facilitate the sharing of information"

Partnerships are the foundation of Finger Lakes PRISM. Partners and communication networks are vital to effective education, outreach, and advancement in the prevention and management of invasive species.

Federal, State, and Regional Participation

In 2024, the Finger Lakes PRISM participated in federal, state, and regional meetings and work groups. These meetings addressed issues including hydrilla management in Cayuga Lake and statewide, HWA containment, the Great Lakes Action Agenda, and SLF in New York. PRISM presented at international conferences held by institutions including the North American Invasive Species Management Association and the International Conference of Aquatic Invasive Species. Finger Lakes PRISM staff regularly attend and provide updates during statewide invasive species calls for education and outreach, aquatic- and terrestrial-focused programming, and more.

Lake associations are a valuable partnership for the Finger Lakes PRISM. They bring diverse motivated volunteers to various PRISM programs and are helpful in identifying invasive species priorities for an important demographic here in the Finger Lakes region. In addition to participation in individual lake association involvement, PRISM staff regularly attend and provide updates to the Finger Lakes Regional Watershed Alliance, an organization representing constituents from all 11 Finger Lakes. One example of these close relationships is the consistent participation of PRISM staff in the Skaneateles Lake Ecology team and with Seneca Lake Pure Waters. Participation in these types of groups allows us to better connect with partners and learn about issues at a more local scale.

Finger Lakes PRISM staff participated in over 23 regional, state, and federal meetings with over 739 people in attendance.

GOAL 3: PARTNERSHIPS, EDUCATION, INFORMATION

Hydrilla in Cayuga Lake

Hydrilla in Cayuga Lake has been an ongoing issue since it was first detected in 2011. Over time, as the in-lake distribution of hydrilla changed, the collaborative efforts among local and statewide stakeholders has grown and adapted. PRISM staff participate in monthly task force meetings focused on hydrilla in Cayuga Lake where we interact with local, municipal, state, and federal agencies to contribute to addressing hydrilla. PRISM staff also participates in events hosted annually by partner organizations focused on educating the public about hydrilla and how it is being addressed in Cayuga Lake.

PRISM Coordinator Sam Beck-Andersen spoke alongside NYSDEC and US Army Corps of Engineers representatives about hydrilla in Cayuga Lake during a public info session hosted by Cayuga Lake Watershed Network.

Watershed Management

Based at the FLI, the Seneca Lake Watershed Intermunicipal Organization (SWIO) and Cayuga Lake Watershed Intermunicipal Organization (CWIO) represent municipalities in the Seneca, Keuka, and Cayuga Lake watersheds. With a focus on water quality improvement projects to limit nutrients in the lakes, SWIO and CWIO maintain valuable relationships with diverse stakeholders including elected officials and county agency professionals throughout the watersheds. Both IOs provide conduits for invasive species outreach and education to their respective stakeholder groups. The connections between IOs and PRISM also offer opportunities for leveraging resources and expertise for specific projects. One example is SWIO's Crooked Canal Wetland Creation Project, where PRISM staff helped to survey future wetlands for invasive species. Another example is our HWA Control program, which leverages the CWIO watershed manager to support treatments and education about HWA in the Cayuga Lake watershed. At the end of this program, the Cayuga Watershed Manager held an IO-specific, on-site HWA treatment workshop and demo with the contractor. Several IO representatives participated to learn about the project and how it is impacting water quality in the Finger Lakes.

GOAL 3: PARTNERSHIPS, EDUCATION, INFORMATION

CWIO representatives attending an HWA treatment demo at Buttermilk Falls State Park.

OUTCOME: Finger Lakes PRISM is the regional leader in invasive species management facilitating active partners, effective public education, and information networks.

GOAL 4: CONTROL AND RESTORATION

"Control invasions through eradication, containment, suppression, and restoration targeting high priority conservation areas."

While prevention is the most effective and most utilized method of IS control for the Finger Lakes PRISM, active control measures are utilized when practicable. Followed by restoration, active control can mitigate invasive species impacts and spread regionally. Targeting high-priority conservation areas and species is key. Below are details of our control projects in the region.

Water Chestnut and European Frogbit Control

Water chestnut infestations remain a priority in the Finger Lakes region, particularly in the NYS Canal System, Seneca River, and lake inlets. Addressing all considerable water chestnut populations in the region is not currently feasible. As such, PRISM staff members have monitored European frogbit (*Hydrocharis morsus-ranae*), which has a moderate abundance regionally with a risk of expanding infestations. The current management goal is containment with a long-term goal of eradication in some areas. We rely on our partnerships to guide management projects that can leverage the efforts of volunteers and other institutions. This approach also engages volunteers and professionals in education and outreach about invasive species management to encourage conservation-oriented decisions in the future. PRISM staff supported or hosted three European frogbit and eight water chestnut pull events across the region in 2024 and contributed to over 10,000 pounds of invasive plant material removed from critical waterways including Braddock Bay WMA, Finger Lakes National Forest, Keuka Lake Outlet, Montezuma National Wildlife Refuge, the southern inlet of Honeoye Lake, and the West River near Canandaigua Lake.

PRISM staff pulling water chestnut in Knox-Marsellus marsh at Montezuma National Wildlife Refuge.

GOAL 4: CONTROL AND RESTORATION

European frogbit in the Honeoye inlet was originally observed by the team at Muller Field Station with Finger Lakes Community College.

After pulling European frogbit out of the Honeoye inlet, partners and community members weigh a total of 465 lbs of plant material at Muller Field Station.

Partner Projects

PRISM TIS staff solicited requests for projects suitable for support from our TIS Field Team. This project is similar to Crew Assistance Programs run by other PRISMs. This program offers us valuable insights into the priorities and strategies of our valued partners and offers the opportunity to leverage our resources to address important invasive species efforts on a more localized scale. Projects were chosen based on the priority, distribution, and phenology of target species, site characteristics, access, and project scope. PRISM staff supported nine projects throughout the region including mile-a-minute (*Persicaria perfoliata*) removal on private land with SUNY Brockport, Japanese stiltgrass (*Microstegium vimineum*) surveys with US Fish and Wildlife Service and NYSDEC, and pale swallowwort (*Cynanchum rossicum*) removal at the Owasco Flats Nature Reserve. Partner projects resulted in 1.56 acres of invasive species controlled by TIS technicians.

TIS technician removing Goldenrain tree at a partner project site.

GOAL 4: CONTROL AND RESTORATION

Swallowwort Biocontrol Project

After a complete survey of swallowwort populations within Mendon Ponds Park in Pittsford, NY, the site was selected as an ideal location to release a population of Hypena opulenta moths as a biocontrol measure. The team assembled an enclosure from a PVC frame and custom-made tent, and on 7/31, 25 male and 25 female H. opulenta adults were placed in the enclosure with jars of a honey-water mixture for feeding. Technicians returned weekly to monitor the number of visible adults, eggs, and larvae and observe percent defoliation of swallowwort as predation by the caterpillars increased.

By 8/27, all swallowwort foliage within the cage had been consumed, at which point the enclosure was opened. Surveys will resume in spring to identify whether any pupae were able to survive the winter, and future releases are planned in 2025 to supplement the biocontrol moth population.

Hypena opulenta release site on 8/27, Mendon Ponds Park, Monroe County.

Key Outputs

- ***Water Chestnut Control - over 10,800 pounds removed***
- ***TIS Field Team - 7 acres treated***
- ***50 Hypena opulanta moths released***

OUTCOME: The occurrence and impact of highly invasive species are reduced in priority conservation areas.

GOAL 5: FUNDING AND SUPPORT

"Secure funding and legislative support from federal, state, and local governments."

Management of invasive species is complex and expensive. A major challenge for Finger Lakes PRISM is to secure the funding and support necessary to accomplish our mission. Strategies to garner funding and support must be targeted, dynamic, and consistent. The Finger Lakes PRISM continually seeks ways to increase external funding and provide support to partner projects. Below are summaries of projects procured from federal and other state funding sources.

Hemlock Woolly Adelgid Treatment in Finger Lakes State Parks

United States Forest Service - Forest Restoration Program

Partnering with NYS Office of Parks, Restoration, and Historic Preservation (NYS OPRHP), this project will preserve critical riparian habitat in four Finger Lakes-region state parks. Education about HWA and the importance of preserving hemlock stands will be communicated through site visits and an HWA survey program. Treatment began in October and Concluded in early November. Over 16,000 DBH inches were treated on over 1,000 trees. “Type 4” applications, where climbing gear is required, were prioritized for the treatment to best supplement current hemlock conservation efforts of NYS OPRHP. Additional treatments will occur in 2025.

Giant Hogweed Control in the Great Lakes

Natural Resources Conservation Service

The United States Department of Agriculture granted the FLI funding to continue control of giant hogweed (Heracleum mantegazzianum) in the Great Lakes Basin. PRISM field technicians worked alongside NYSDEC Giant Hogweed program staff out of regional offices in Avon and Syracuse. Technicians visited over 300 sites and supported the treatment of almost 70 acres of giant hogweed populations. This program also supports educational efforts to the public throughout the region. This project will continue to support seasonal technical staff in 2025 and 2026.

Giant hogweed technician using mechanical tools to remove giant hogweed.

GOAL 5: FUNDING AND SUPPORT

Surveying Ponds in the Finger Lakes National Forest for Invasive Species

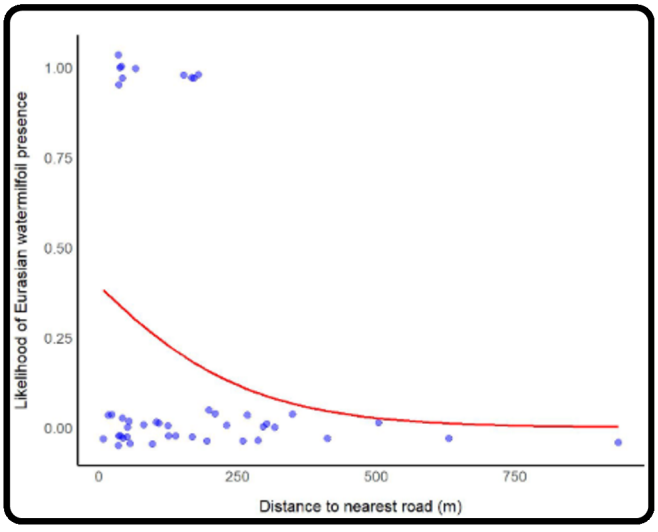
United States Forest Service – Cooperative Weed Management Area Program

Finger Lakes PRISM staff continued work on a project to survey 87 manmade ponds within the Finger Lakes National Forest (FLNF). These ponds provide grazing cattle with drinking water, recreational resources for FLNF visitors, and important water storage for the Seneca and Cayuga Lake watersheds. The program seeks to better understand water chestnut infestations in FLNF ponds and to control four existing populations. Work also focuses on inventorying ponds within the forest for invasive species and collecting water quality data at a subset of ponds. Finally, the program includes the development of a community science program to continue pond monitoring into the future.

The PRISM and FLI staff were able to survey at 69 of the ponds in 2024. Ponds that were not sampled were due to inaccessibility by foot or the pond had filled in and no longer exist. Water chestnut was observed in twelve of the ponds surveyed, leading to removal events at four of the ponds. A total of 89lbs of water chestnut was removed from Teeter pond, while less than ten lbs of water chestnut was removed from the three other, smaller, ponds in the FLNF. At the three smaller ponds, total removal of water chestnut from the pond was accomplished.

Left: PRISM staff and partners pull water chestnut at Teeter Pond in the Finger Lakes National Forest.

Above: AIS technicians collecting macrophyte data at a pond in the Finger Lakes National Forest.



Left: Finger Lakes National Forest ponds nearest to roads were most likely to have Eurasian watermilfoil present.

GOAL 5: FUNDING AND SUPPORT

Surveying Ponds in the Finger Lakes National Forest for Invasive Species Cont'd

United States Forest Service – Cooperative Weed Management Area Program

In addition to water chestnut, three other aquatic invasive species - Eurasian watermilfoil, starry stonewort, and curly leaf pondweed - were observed in a number of ponds. We determined through a logistical regression model that ponds nearer to a road were more likely to have Eurasian watermilfoil present. Including native and invasive species, eighteen different submerged aquatic species were observed throughout the ponds in the FLNF. The highest species richness observed in a pond was six species present in both Cronk and Butcher Hill ponds, while the lowest was zero species observed in twenty-eight of the ponds surveyed. The average species richness in ponds sampled was 1.5.

Tolerance of Aquatic Macrophytes to Water Quality Indicators in the Finger Lakes Watershed

New York State Water Resources Institute

This project supports efforts to analyze existing datasets to determine relationships among water quality parameters and invasive species in the Finger Lakes. The project utilized data from the Citizen Science Lake Assessment Program (CSLAP) and existing AIS datasets (Finger Lakes WISP and EDRR programs). This project further demonstrates the opportunities afforded by the interdisciplinary nature of FLI programming and the comprehensive approach PRISM uses aim to address invasive species. In addition to preliminary results that show connections between CSLAP and AIS datasets, this program yielded interesting information about disparities between the sampling efficacy of boat stewards and rake toss sampling for certain macrophytes. The project also supports a research effort examining the effect of removing floating plants on the detection rate for watercraft stewards at boat launches. Program staff identified a relationship between the removal of plants at a launch and macrophyte detection rates by stewards at those launches. These relationships will be further analyzed until the conclusion of this project in 2025.

OUTCOME: Adequate funding and consistent support ensures effective invasive species management across the region.

ACKNOWLEDGEMENTS

The Finger Lakes Partnership for Regional Invasive Species Management (Finger Lakes PRISM) is a collaborative program designed to address the threat of invasive species. Housed within Hobart and William Smith Colleges' Finger Lakes Institute (FLI), the program is one of eight across New York that focuses on managing invasive species, developing detection programs, employing response efforts, providing education programs and outreach, and working with communities. PRISM programs are administered through the New York State Department of Environmental Conservation.

Hobart and William Smith Colleges is a nationally recognized liberal arts institution defined by a longstanding focus on educating across academic disciplines and an intellectual environment that cultivates faculty and student connections. With a strong commitment to inclusive excellence, the Colleges have a distinguished history of interdisciplinary teaching and scholarship, curricular innovation and exceptional outcomes. Hobart and William Smith provide robust programs in career development, study abroad, service, leadership and athletics. Located in the heart of the Finger Lakes region, Hobart and William Smith enjoy a lakeside campus on the shore of Seneca Lake. Originally founded as two separate colleges (Hobart for men in 1822 and William Smith for women in 1908), Hobart and William Smith students share the same campus, faculty, administration and curriculum.

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NEW YORK STATE INVASIVE SPECIES MANAGEMENT

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